

CURRENT CLAIMS AS OF 6/21 AMENDMENT

1. (Twice Amended) A synthetic or isolated nucleic acid fragment which comprises a nucleotide sequence that is identical or fully complementary to a first sequence starting at nucleotide 1232 and ending at nucleotide 1825 of SEQ ID NO: 1 or the corresponding RNA sequence.

2. (Twice Amended) The nucleic acid fragment according to claim 1, wherein said nucleotide sequence is identical or fully complementary to a second sequence starting at nucleotide 1232 and ending at nucleotide 2207 of SEQ ID NO: 1 or the corresponding RNA sequence.

5. (Three Times Amended) A probe for identifying *Trypanosoma cruzi*, said probe having at least 85% homology with a fragment of a nucleotide sequence that is identical or fully complementary to a sequence starting at nucleotide 1232 and ending at nucleotide 2207 of SEQ ID NO: 1 or the corresponding RNA sequence, wherein said probe contains at least 5 and no more than 100 nucleotides.

7. The probe according to claim 5, wherein said probe comprises 8 to 50 nucleotides.

8. (Three Times Amended) A primer for amplifying a nucleotide sequence, said primer having at least 85% homology with a fragment of a nucleotide sequence that is identical or fully complementary to a sequence starting at nucleotide 1232 and ending at nucleotide 2207 of SEQ ID NO: 1 or the corresponding RNA sequence, wherein said primer contains at least 5 and no more than 30 nucleotides.

10. (Three Times Amended) The primer according to claim 8, wherein said primer comprises a nucleotide sequence selected from the group consisting of SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10 and SEQ ID NO:12.

11. (Twice Amended) A reagent for detecting or identifying *Trypanosoma cruzi* in a biological sample, said reagent comprising a capture probe and a detection probe, both in accordance with claim 5, wherein said capture probe and said detection probe have nucleotide sequences that are different from one another.

12. The reagent according to claim 11, wherein said capture probe is attached to a solid support.

13. The reagent according to claim 12, wherein said capture probe is directly attached to said solid support.

14. The reagent according to claim 12, wherein said capture probe is indirectly attached to said solid support.

15. The reagent according to claim 11, wherein said detection probe is labelled by a marker selected from the group consisting of radioactive isotopes, enzymes capable of hydrolyzing a chromogenic, fluorogenic or luminescent substrate, chromophoric chemical compounds, fluorogenic compounds, luminescent compounds, nucleotide base analogs, and biotin.

16. The reagent according to claim 15, wherein said enzymes are selected from the group consisting of peroxidase and alkaline phosphatase.

17. (Twice Amended) The reagent according to claim 11, further comprising at least one primer comprising a segment of at least five contiguous nucleotides of a nucleic acid which comprises a nucleotide sequence that is identical or fully complementary to a first sequence starting at nucleotide 1232 and ending at nucleotide 1825 of SEQ ID NO: 1 or the corresponding RNA sequence.

18. (Amended) A method for detection and/or identification of *Trypanosoma cruzi* in a biological sample, comprising exposing denatured DNA extracted from *Trypanosoma cruzi* or DNA obtained by reverse transcription of RNA extracted from

Trypanosoma cruzi to at least one probe according to claim 5; and detecting hybridization of said probe.

19. A method for detection and/or identification of Trypanosoma cruzi in a biological sample, comprising exposing extracted RNA from Trypanosoma cruzi to at least one probe according to claim 5; hybridizing said probe with said RNA; and detecting said hybridization.

20. (Twice Amended) The method according to claim 18, wherein before said DNA is exposed to said probe, said DNA is amplified in the presence of an enzymatic system with at least one primer, wherein said primer comprises a segment of at least five contiguous nucleotides of a nucleic acid sequence that is identical or fully complementary to a sequence identified in SEQ ID NO: 1 or the corresponding RNA sequence.

21. (Twice Amended) A synthetic or isolated nucleic acid fragment that comprises a nucleotide sequence having at least 85% homology with a reference sequence that is identical or fully complementary to a sequence starting at nucleotide 1232 and ending at nucleotide 1825 of SEQ ID NO: 1 or the corresponding RNA sequence, wherein each segment of 30 contiguous nucleotides of said nucleotide sequence has at least 85% homology with a segment of 30 contiguous nucleotides of said reference sequence.

22. (Twice Amended) The nucleic acid fragment of claim 21, said nucleotide sequence having at least 85% homology with a second reference sequence that is identical or fully complementary to a sequence starting at nucleotide 1232 and ending at nucleotide 2207 of SEQ ID NO: 1 or the corresponding RNA sequence, wherein each segment of 30 contiguous nucleotides of said nucleotide sequence has at least 85% homology with a segment of 30 contiguous nucleotides of said second reference sequence.

23. (Twice Amended) A synthetic or isolated nucleic acid fragment that comprises a nucleotide sequence having at least 85% homology with a reference sequence

that is identical or fully complementary to a sequence starting at nucleotide 1266 and ending at nucleotide 2207 of SEQ ID NO: 1 or the corresponding RNA sequence, wherein each segment of 30 contiguous nucleotides of said nucleotide sequence has at least 85% homology with a segment of 30 contiguous nucleotides of said reference sequence.

24. (Twice Amended) The nucleic acid fragment of claim 23, wherein said nucleotide sequence is identical or fully complementary to a sequence starting at nucleotide 1266 and ending at nucleotide 2207 of SEQ ID NO: 1 or the corresponding RNA sequence.

25. (Amended) A probe according to claim 5, wherein said nucleotide sequence is identical or fully complementary to a sequence starting at nucleotide 1232 and ending at nucleotide 1825 of SEQ ID NO: 1 or the corresponding RNA sequence.

26. (Amended) A probe according to claim 5, wherein said nucleotide sequence is identical or fully complementary to a sequence starting at nucleotide 1266 and ending at nucleotide 2207 of SEQ ID NO: 1 or the corresponding RNA sequence.

27. (Amended) A process for detecting and/or identifying *Trypanosoma cruzi* in a biological sample, comprising:

exposing DNA or RNA from the sample to a probe under such conditions that
said probe hybridizes to a nucleotide sequence identical or fully complementary to a
sequence starting at nucleotide 1232 and ending at nucleotide 2207 of SEQ ID NO: 1 or the
corresponding RNA sequence; and

detecting hybridization of the probe to said DNA or RNA to detect and/or
identify *Trypanosoma cruzi*.

32. (Amended) The reagent of claim 17, wherein said primer contains no more than 30 nucleotides.

34. (Amended) The method of claim 20, wherein said primer contains no more than 30 nucleotides.

36. (Amended) The nucleic acid fragment of claim 21, wherein said nucleotide sequence:

is a nucleic acid sequence that is identical to or is a degenerate of a sequence starting at nucleotide 1232 and ending at nucleotide 1825 of SEQ ID NO: 1 or the corresponding RNA sequence, or

is a full complement of said nucleic acid sequence.

37. (Amended) The nucleic acid fragment of claim 22, wherein said nucleotide sequence:

is a nucleic acid sequence that is identical to or is a degenerate of a sequence starting at nucleotide 1232 and ending at nucleotide 2207 of SEQ ID NO: 1 or the corresponding RNA sequence, or

is a full complement of said nucleic acid sequence.

38. (Amended) The nucleic acid fragment of claim 23, wherein said nucleotide sequence:

is a nucleic acid sequence that is identical to or is a degenerate of a sequence starting at nucleotide 1266 and ending at nucleotide 2207 of SEQ ID NO: 1 or the corresponding RNA sequence, or

is a full complement of said nucleic acid sequence.

39. The probe of claim 5, wherein said probe contains at least five contiguous nucleotides of said nucleotide sequence.

40. The primer of claim 8, wherein said primer contains at least five contiguous nucleotides of said nucleotide sequence.